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| Title | Numerical computation of natural ventilation system at the top floor of a multistory building in Dhaka city | | |
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| Published Journal Name | Journal of Bangladesh Academy of Sciences | | |
| Type of Publication | Joint | | |
| Volume | 44 | Issue | 02 |
| Publisher |  | | |
| Publication Date | 2020 | | |
| ISSN | 0378-8121 | | |
| DOI | https://doi.org/10.3329/jbas.v44i2.51460 | | |
| URL | https://www.banglajol.info/index.php/JBAS/article/view/51460 | | |
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| Abstract |  |
| Urban environment studies have become more and more critical in the past decades because of the rapid development of urbanization in industrial countries. Temperature, velocity, average mass flow, etc. at different unit on the top floor of a multistory building are discussed here. For the numerical computation of the air flow inside the building rooms, the k−ε turbulence model is used. ANSYS CFX software is used to solve the governing equations. For modeling the building, Bangladesh's national building code is applied. The turbulence model is also validated by comparing the result with an experimental result and a numerical result. Satisfactory ventilation rate is also ensured by comparing the result with ANSI/ASHRAE Standard 62.1-2004. | |